

CRUISE REPORT

(Continental Slope Project - Gulf of Mexico)

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1. Ship: R/V FAY
2. Cruise Number/Leg: 011 (Leg Alpha), 012 (Leg Bravo), 013 (Leg Charlie),  
014 (Leg Delta)
3. Area of Operations: The study area covers that part of the Gulf of Mexico continental slope lying between water depths of approximately 200 meters to 1000 meters, and extending from the United States-Mexico boundary in the western Gulf to latitude 26° north off Florida.
4. Dates of Operations and Port Stops:
  - (11) Leg Alpha: March 10 - March 25  
Port Stop, New Orleans: March 26 - March 27
  - (12) Leg Bravo: March 28 - April 14  
Port Stop, New Orleans: April 15 - April 17
  - (13) Leg Charlie: April 18 - May 5  
Port Stop, Corpus Christi: May 6 - May 8
  - (14) Leg Delta: May 9 - May 19  
Port, Corpus Christi
5. Personnel & Affiliations:

Leg Alpha:

Ship Captain:	James P. Olander	
Chief Scientist:	Louis E. Garrison	(USGS)
Scientific Crew:	Ron Miller	"
	Bob Vitaglione	"
	Jack Kindinger	"
	Cindy Rice	"
	Tom Tatum	"
	Ken Roberts	"
	Mike Dorsey	"
	Jim Woods	"
	Scott Heald	"
	Dee Haines	"
	Cary Pyle	"
	Scudder Mackey	(Univ. of Wisconsin)
	Jay van Tassel	"
	Lester Shepard	(Texas A&M University)
	Kathy Williamson	(Texas A&I University)
	Hendrick Hinkes	(Western Geophysical)

Leg Bravo:

Ship Captain:	James P. Olander	
Chief Scientist:	James S. Booth	(USGS)
Scientific Crew:	Cary Pyle	"
	Jim Woods	"
	Scott Heald	"
	George Wiley	"
	Brian Murphy	"
	Tom Tatum	"
	Stan Linquist	"
	Bob Vitaglione	"
	Dee Haines	"
	Jack Kindinger	"
	Paul Milner	(Univ. of Wisconsin)
	J. R. Moore	"
	Bob Waush	"
	Tom Ferebee	(Texas A&M University)
	Hendrick Hinkes	(Western Geophysical)

Leg Charlie:

Ship Captain:	James P. Olander	
Chief Scientist:	Gary W. Hill	(USGS)
Scientific Crew:	Ron Miller	"
	Jim Woods	"
	Jack Kindinger	"
	Cary Pyle	"
	Ken Roberts	"
	Mike Dorsey	"
	Bob Vitaglione	"
	Scott Heald	"
	Dee Haines	"
	Tom Tatum	"
	Stan Linquist	"
	Ron Scerci	(Texas A&I University)
	Charles Katherman	(Texas A&M University)
	Bruce Sidner	"
	Marty Robinson	"
	Paul Bereznak	(Western Geophysical)

## Leg Delta

Ship Captain:	James P. Olander	
Chief Scientist:	Charles W. Holloms	(USGS)
Scientific Crew:	Cary Pyle	"
	Sue Casby	"
	Scott Heald	"
	Stan Linquist	"
	Tom Tatum	"
	Bob Vitaglione	"
	Betty Willingham	"
	<del>Jack</del> Kindinger	"
	Mitch Henry	"
	Ken Parolski	"
	Dee Haines	"
	Bill Hottman	(Texas A&M University)
	Bernie Barnard	"
	Paul Bereznak	(Western Geophysical)

### 6. Purpose:

The general objective of the Gulf of Mexico Continental Slope project is to define the possible extent of unstable sediments on the slope and estimate the degree of instability in selected areas. The first phase of the slope project involved acquisition and interpretation of 11,233 statute miles of high resolution seismic data throughout the study area. Western Geophysical Co. of America collected the geophysical data including fathometer profiles, 3.5 kHz subbottom profiles and 1000 joule sparker profiles. From these data, a map of the shallow and surface geological features of the slope was produced. Using this information, specific sites were chosen for the deep Gulf cruises aboard the R/V FAY. During these cruises, high density seismic profiling was done at each site followed by a sediment sampling program.

### 7. Scientific Equipment:

Equipment utilized included: EG&G minisparker, Edo Western 3.5 kHz subbottom profiler; Lehigh University hydroplastic corer; Smith-MacIntyre grab sampler, piston corer, gravity corer; Benthos underwater camera and an InterOceans temperature, depth and dissolved oxygen profiling instrument.

### 8. Navigational Techniques:

The navigation on the R/V FAY is provided by an integrated system utilizing Loran C and Satellite navigation. GMT was used for navigation and record annotation.

9. Data Acquired: *km.*

Data acquired included: A. 4967 miles of sparker profiles; *km.*  
 B. 1563.5 miles of 3.5 kHz Edo profiles; C. 37 piston cores;  
 D. 59 hydroplastic cores; E. 52 Smith-MacIntyre grab samples;  
 F. 22 dissolved oxygen traces; G. 41 bottom photography stations  
 and H. 19 gravity cores.

11. Tabulated Information:

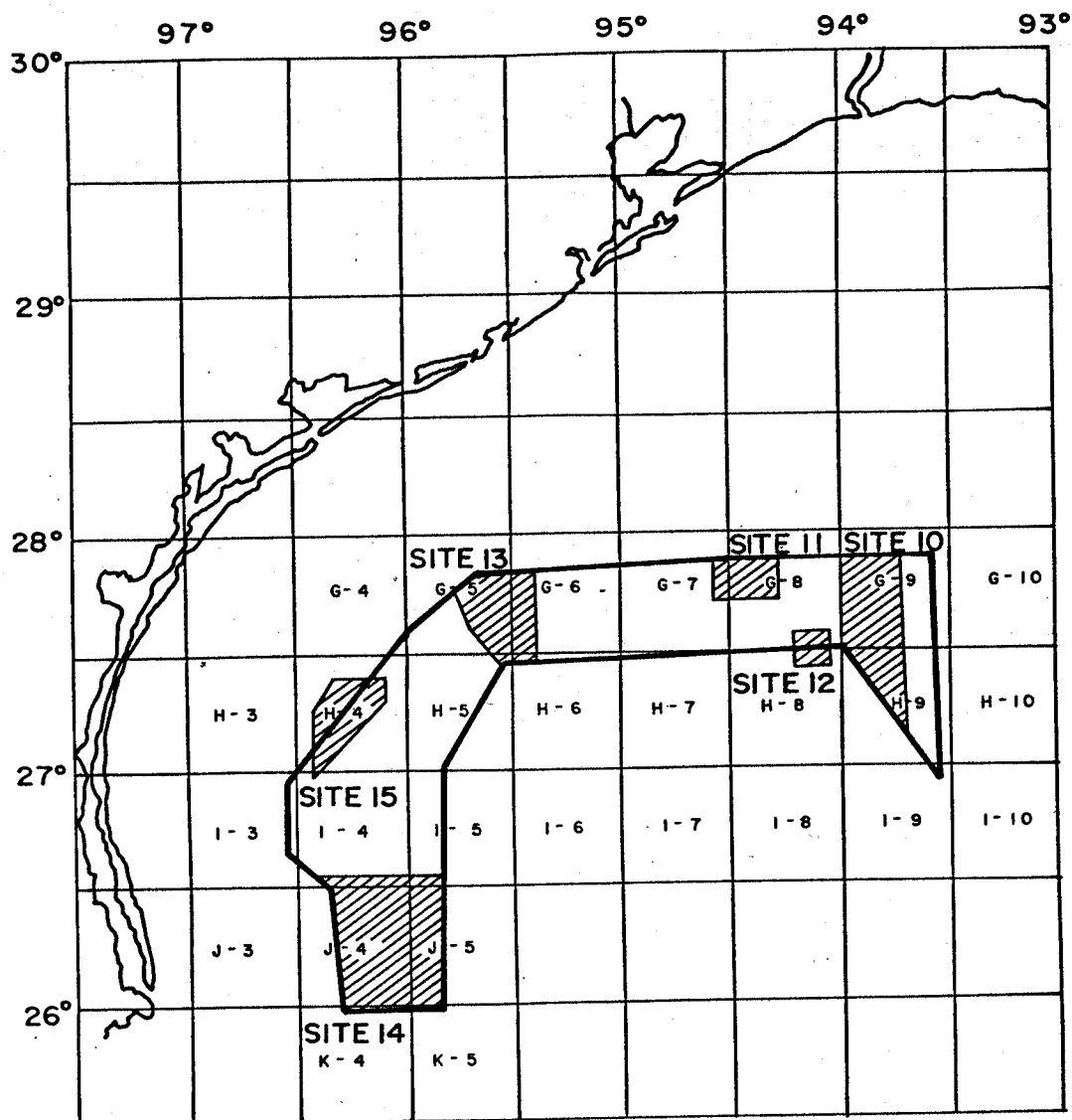
Leg	11 Alpha	12 Bravo	13 Charlie	14 Delta	Total
No. of days at sea	16	18	18	11	63
No. of working days at sea	13	18	18	11	60
Total ship's track (km)✓	2427	1373	1901	1409	7110
Total sparker data (km)✓	1248	1052	1579	1087	4966
Total 3.5 kHz Edo data (km)✓	125	566	398	475	1564
Total no. of stations	17 ✓	24 ✓	29 ✓	14 ✓	84
No. of piston cores	5 ✓	12 ✓	17 ✓	3 ✓	37
No. of hydroplastic cores	16 ✓	20 ✓	16 ✓	7 ✓	59
No. of Smith-MacIntyre samples	16 ✓	14 ✓	20 ✓	2 ✓	52
No. of dissolved oxygen traces	11 ✓	11 ✓	0	0	22
No. of bottom photo stations	10 ✓	14 ✓	17 ✓	0	41
No. of gravity cores	0	0	0	19 ✓	19

*Tom Tatum  
 says distances are  
 in km. J2 22 June 76*

# OFFSHORE TEXAS

## AREA I

### INDEX MAP



LINES: 1-59

SPUR LINES: 26A, 30A

6 STATUTE MILE X 6 STATUTE MILE GRID

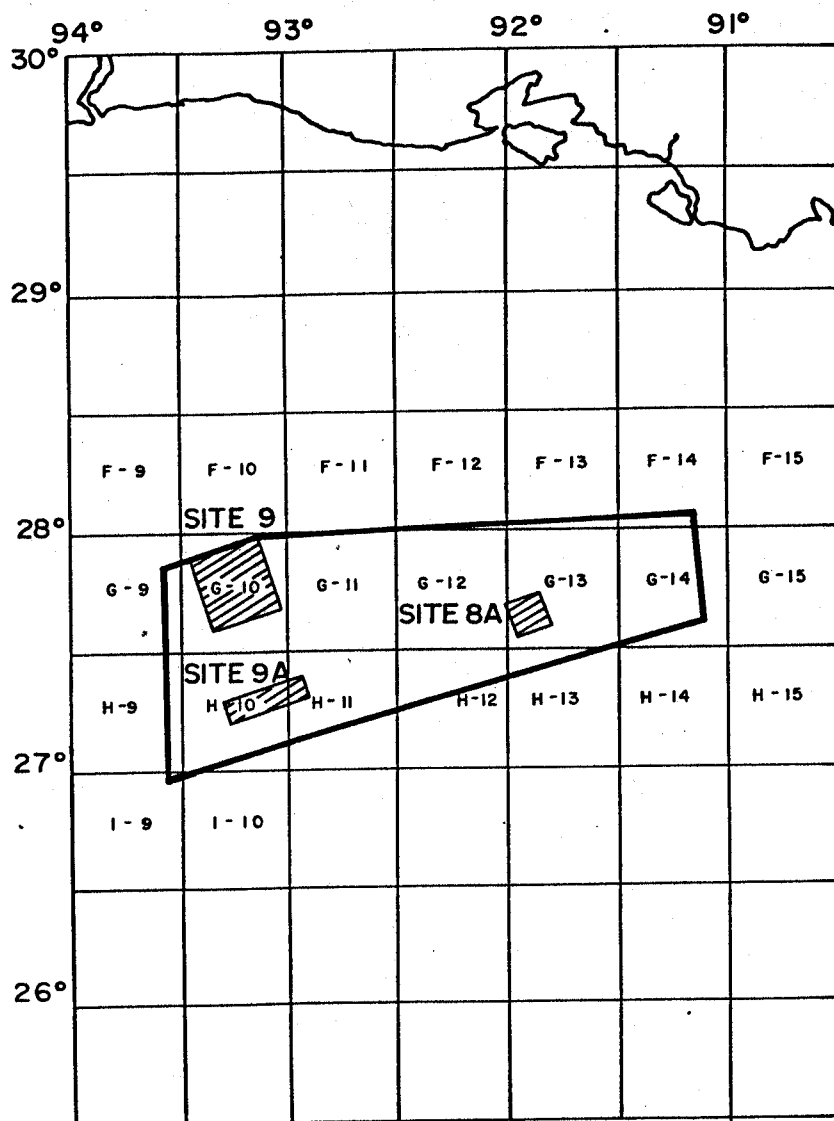
APPROXIMATELY 3° NORTHWEST TILT

Figure 21. Index map of Area I with site locations.

# OFFSHORE LOUISIANA

## AREA II

### INDEX MAP



LINES: 60 - 87

SPUR LINE: 69A

8 STATUTE MILE X 8 STATUTE MILE GRID

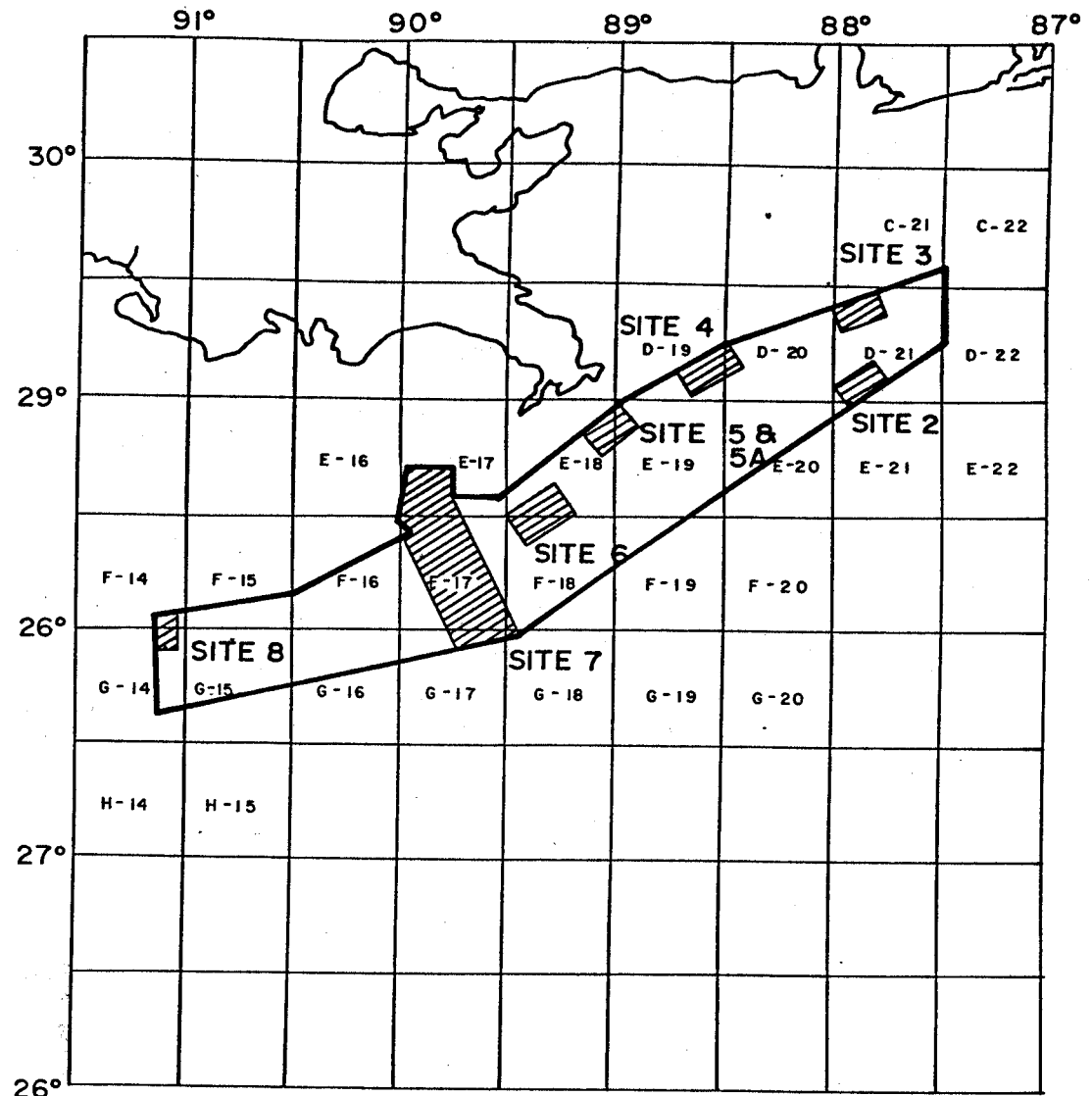
APPROXIMATELY 15° NORTHWEST TILT

Figure 17. Index map of Area II with site locations.

# OFFSHORE LOUISIANA, MISSISSIPPI AND ALABAMA

## AREA III & IV

### INDEX MAP



LINES: 88 - 178

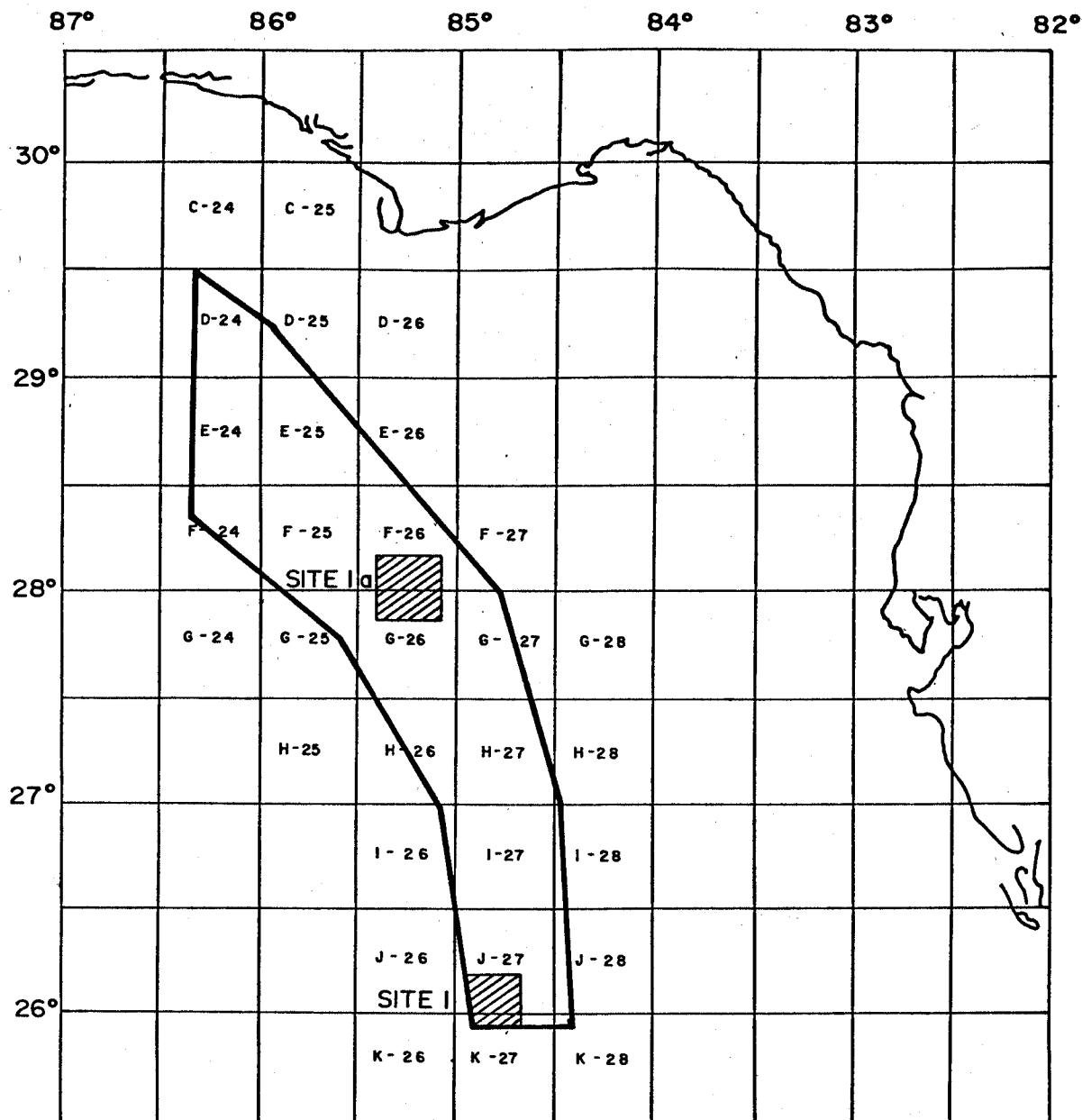
4 STATUTE MILE X 4 STATUTE MILE GRID  
APPROXIMATELY 44° NORTHWEST TILT

Figure 7. Index map of Area III & IV with site locations.

# OFFSHORE FLORIDA

## AREA V

### INDEX MAP



LINES: 179 - 214

10 STATUTE MILE X 10 STATUTE MILE GRID  
NORTH-SOUTH, NO TILT

Figure 2. Index map of Area V with site locations.